



MICH-A-CON

Iron Mountain,
Dickinson County, Mich

May 2018

Meeting Reminder: [Second Wednesday of the Month](#)

Which is **May 9, 2018** at **07:00 PM** at the **Dickinson Library, Iron Mountain.**
Please be there and support the cause of Amateur Radio.

From The President

I've been ill and out of town for a while. Writing "Words" became almost impossible for me. So, I'm recycling an "award winning" Words from the past. These "Words" never get out of style. Just ask Janet.

Words from the President

I know that most of you reading these "words" are familiar with the yearly Spring Cleaning chores around the house, basement, garage, etc. Each spring, sometimes later than spring, or maybe even earlier than spring, we attack the before mentioned areas with great zeal and determination. Our purpose is to rid those areas of unnecessary items, to create a tidy space, and to remove any dust, grime, and dirt from sight. It was with this in mind that my XYL and I attacked the garage.

The following is not to be construed as *the* actual dialogue but it is somewhat close to what was uttered:

ANN: Why do you need this pipe?

TOM: It's for an antenna.

ANN: Do you need all of these pieces?

TOM: Yes.

ANN: Let's put all of them in an orderly fashion.

TOM: They looked orderly to me.

ANN: You just throw things up here (referring to the garage rafters) any old way and you think it's neat!

TOM: (Under breath) OK.

ANN: Why do you have all of these little pieces of wire up here? Do you really need them? Are you ever going to use them?

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TOM: You never know when you will need an 18" piece of #14 enameled copper wire. It may be this month or two years from now. Did I ever tell you the story of the crystal that I had kept from 1959, through my college years, through the Viet Nam War, through at least ten moves, and through two marriages? Well, Mike Bray was looking for that very crystal awhile back and I had it!!! Now, if I'd thrown that away he would be still looking. I came to the rescue.

ANN: You've told me that story every time, whenever I wanted you to get rid of some ham stuff. Do you think that it still works?

TOM: Uh, (long pause)

ANN: OK, fine. Now, what is all of this cable for?

See you all at the May 9th meeting. We will discuss Field Day and other subjects.

73,

Tom W8JWN

MICH-A-CON AMATEUR RADIO CLUB MINUTES OF April 11th, 2018

President Tom Martin called the meeting to order at 7:00 pm.

Secretary Report

Minutes of the March 14th, 2018 meeting were read and approved.

Treasurer Report

Balances as of April 11th, 2018:

Checking: \$111.01

Savings: 3406.92 (Repeater: \$1499.12)

Cash: \$23.00

Repeater Report

Bob Meyers suggested going over the repeater controls with Tom Martin and posting a copy of the KC8VC license in the repeater building.

Debbie Grabowski reported that she has contacted prospective climbers and that the information has been passed on to Bob Meyers.

Old Business

Dave Thomas reported that he now has the TS-440, purchased from the club, operating properly.



The club dinner, held in March, was given good reviews by those attending. Early March was felt to be good a good time to hold it.

Three Motorola power supplies that Dave Thomas offered for sale at the March meeting were sold. The proceeds of \$90.00 were donated to the club.

It was agreed that setup for ARRL Field Day (June 23 & 24) will be taken up at the May 9 meeting.

New Business

Severe weather storm spotter locations were reviewed. It was determined that a SkyWarn presentation will be held at Bay West College on May 9, at 6:30 pm.

It was suggested that the storm spotter assignment chart be included in the club newsletter.

Terry Moriarity noted that there is a need for someone to run the Mich-A-Con Thursday night social net for the summer. Bob Meyers will be up north and Terry won't be available often. Volunteers are appreciated.

Debbie Grabowski reported that the Iron River club is considering an accountant for their 2018 taxes, due to a new law concerning non-profits. The consensus was that we shouldn't worry about it at this point, since we don't deal with a large amount of money.

Adjournment

Meeting adjourned at 7:37 pm.(Bruce LaLiberte/Terry Moriarity)

The 50/50 drawing was won by Tom Martin. The club treasury was enriched by \$25.00.

For the Good of the Order

Attendees reported on their recent activities.

Attendees

Tom Martin	W8JWN	Dave Thomas	KG9Y
Scott Jarmusch	KA8TFF	Terry Moriarity	K9TRY
Joe Ferris	KC9TQR	Bob Meyers	WA8FXQ
Debbie Grabowski	KD8VTS	Sam Holmes	N8ATS
Bill Grabowski	KD8VTT	Bruce LaLiberte	KD9HQD
Gary Schafer	K4FMX	Janet Schafer	Visitor
Tim Miller	N8TUM	Joyce Williams	Visitor
Skip Caswell	KE9L		

News



PRESENTS THE

~90+ stage miles
~10 transit miles

Saturday
8am – 10:30pm CDT



**Central U.P.
Rally**

June 16, 2018
Powers, Michigan 49874

**Automotive Rally racing in the
heart of the Upper Peninsula**

Sponsored by
Cobra Engineering – HorizonGlobe.us - RGVFarm

For information or to volunteer goto-
www.cuprally.net
www.nasarallysport.com

The race is Saturday June 16th based in Powers MI- registration until 11 am and racing until 8-9 pm (barring delays). All times are CDT. Pre-registration is helpful but not required, race day check-in is (to ensure participants are covered by our race insurance.) Follow the links at [cu-prally.com](http://cuprally.com).

SkyWarn Spotters (2018)

Steve Johnson	K8CRY	Millie Hill
Tom Martin	W8JWN	Millie Hill Overlook
Burt Armbrust	WB8EBS	Hill above Wells Fargo, along US-2
Skip Caswell	KE9L	Merriman/Granite Bluff area
Barry Perron	KC9NFT	Keyes Peak
Bob Meyers	WA8FXQ	Faithorn area (if not in Copper Country)
Terry Moriarity	K9TRY	Niagara
Dave Thomas	KG9Y	Niagara
Bill Grabowski Debbie Grabowski	KD8VTT KD8VTS	Mansfield Township/Johnson Potato Farm area
Sam Holmes	N8ATS	Pike Plains, Dunbar
Joe Ferris	KC9TQR	Vicinity of CR-N, U, & C in Florence County
Scott Dolatowski	KC9ZBC	Goodman



ARLX006 Radio Amateurs in Canada to Get New 100 Watt 5 MHz Allocation

ZCZC AX06
 QST de W1AW
 Special Bulletin 6 ARLX006
 From ARRL Headquarters
 Newington CT April 17, 2018
 To all radio amateurs

Radio Amateurs in Canada are poised to join those in several other nations around the world who have access to a new 60-meter band, 5351.5 - 5366.5 kHz, as agreed upon at World Radio-communication Conference 2015 (WRC-15), but with a maximum power of 100 watts effective radiated power (ERP). The updated Canadian Table of Frequency Allocations includes the new allocation, although radio amateurs have not yet been authorized to use it. This updated table can be found on the web at, <http://www.ic.gc.ca/eic/site/smt-gst.nsf/eng/sf10759.html>.

Canada's radio amateurs will also retain the four Amateur Radio channels that do not fall within the new allocation. These have been authorized under a footnote to the Table since 2014, permitting phone, data, and CW at a maximum occupied bandwidth of 2.8 kHz. The 60-meter allocation and spot frequencies are on a secondary, non-interference basis.

In January 2017, ARRL asked the FCC to allocate a new, secondary contiguous band at 5 MHz to the Amateur Service, while also retaining four of the current five 60-meter channels and current operating rules, including the 100 watt PEP ERP limit. The federal government is the primary user of the 5 MHz spectrum in the US. The FCC has yet to act on ARRL's petition.

Canada's regulatory agency, the Department of Innovation, Science and Economic Development Canada (ISED) last August proposed to adopt WRC-15 decisions that included the 15 kHz Amateur Radio allocation.

The proposed revisions to the Table would retain the original five 5 MHz spot frequencies with a maximum of 100 watts ERP, but restrict the new 15 kHz allocation to just 15 watts EIRP, as agreed to at WRC-15, accom-

modating the concerns of a few countries over possible interference to their domestic communications.

"Radio Amateurs of Canada (RAC) noted in its response to the proposed changes that there had been no reports of interference from Amateur Radio operations on the existing five 60-meter spot frequencies following their use in Canada since 2014 and in the USA for even longer," RAC President Glenn MacDonell, VE3XRA, said.

"Further, the rationale for allocating the spot frequencies had been based on the value of 60 meters for emergency communication, and the low power limit adopted at WRC-15 would seriously limit this use."

MacDonnell said comments from the Radio Advisory Board of Canada (of which RAC is a member organization), the Ottawa Valley Mobile Radio Club, the Marconi Radio Club of Newfoundland, and several individual radio amateurs also recommended 100 watts.

"The new allocation will be more effective and manageable for domestic SSB communications, and consistent with the existing use of the band on the five spot frequencies now enjoyed by Canadian amateurs," MacDonnell said.

ISED typically authorizes the use of new allocations via a revised document RBR-4 - Standards for the Operation of Radio Stations in the Amateur Radio Service.

"Radio Amateurs of Canada will be urging ISED to authorize the new 15 kHz segment as soon as possible," MacDonell said.

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ARLB032 W1AW 2018 Spring Operating Schedule

ZCZC AG08
 QST de W1AW
 ARRL Bulletin 8 ARLB008
 From ARRL Headquarters
 Newington CT March 12, 2018
 To all radio amateurs

Morning Schedule:

Time	Mode	Days
1300 UTC (9 AM ET)	CWs	Wed, Fri
1300 UTC (9 AM ET)	CWf	Tue, Thu

Daily Visitor Operating Hours:

1400 UTC to 1600 UTC - (10 AM to 12 PM ET)
 1700 UTC to 1945 UTC - (1 PM to 3:45 PM ET)

(Station closed 1600 to 1700 UTC (12 PM to 1 PM ET))

Afternoon/Evening Schedule:

2000 UTC (4 PM ET)	CWf	Mon, Wed, Fri
2000 " "	CWs	Tue, Thu
2100 " (5 PM ET)	CWb	Daily
2200 " (6 PM ET)	DIGITAL	Daily
2300 " (7 PM ET)	CWs	Mon, Wed, Fri
2300 " "	CWf	Tue, Thu
0000 " (8 PM ET)	CWb	Daily
0100 " (9 PM ET)	DIGITAL	Daily
0145 " (9:45 PM ET)	VOICE	Daily
0200 " (10 PM ET)	CWf	Mon, Wed, Fri
0200 " "	CWs	Tue, Thu
0300 " (11 PM ET)	CWb	Daily

Frequencies (MHz)

 CW: 1.8025 3.5815 7.0475 14.0475 18.0975 21.0675
 28.0675 50.350 147.555
 DIGITAL: - 3.5975 7.095 14.095 18.1025 21.095 28.095
 50.350 147.555
 VOICE: 1.855 3.990 7.290 14.290 18.160 21.390 28.590
 50.350 147.555

Notes:

CWs = Morse Code practice (slow) = 5, 7.5, 10, 13 and 15 WPM
 CWf = Morse Code practice (fast) = 35, 30, 25, 20, 15, 13 and 10 WPM
 CWb = Morse Code Bulletins = 18 WPM

CW frequencies include code practices, Qualifying Runs and CW bulletins.

DIGITAL = BAUDOT (45.45 baud), BPSK31 and MFSK16 in a revolving schedule.

Code practice texts are from QST, and the source of each practice is given at the beginning of each practice and at the beginning of alternate speeds.

On Tuesdays and Fridays at 2230 UTC (6:30 PM ET), Keplerian Elements for active amateur satellites are sent on the regular digital frequencies.

A DX bulletin replaces or is added to the regular bulletins between 0000 UTC (8 PM ET) Thursdays and 0000 UTC (8 PM ET) Fridays.

Audio from W1AW's CW code practices, and CW/digital/phone bulletins is available using EchoLink via the W1AW Conference Server named "W1AWBDCT." The monthly W1AW Qualifying Runs are presented here as well. The CW/digital/phone audio is sent in real-time and runs concurrently with W1AW's regular transmission schedule.

All users who connect to the conference server are muted. Please note that any questions or comments about this server should not be sent via the "Text" window in EchoLink. Please direct any questions or comments to w1aw@arrl.org.

In a communications emergency, monitor W1AW for special bulletins as follows: Voice on the hour, Digital at 15 minutes past the hour, and CW on the half hour.



FCC licensed amateurs may operate the station from 1400 UTC to 1600 UTC (10 AM to 12 PM ET), and then from 1700 UTC to 1945 UTC (1 PM to 3:45 PM ET) Monday through Friday. Be sure to bring your current FCC amateur license or a photocopy.

on page 90 in the March 2018 issue of QST or on the web at, <http://www.arrl.org/w1aw-operating-schedule>.
NNNN

The complete W1AW Operating Schedule may be found

ARRL MICHIGAN SECTION NEWS

Greetings to the Amateurs of Michigan for April,

The April weather is demonstrating the notion that if you are not happy with the current climate, just wait 5 minutes. Eventually, things will warm up, making it easier to spend more time outside.

I have heard many comments either in person or on the air relative to the ARRL request to expand HF privileges for Technician Licensees. Feel free to share your thoughts with your fellow amateurs, and of course your section team.

The Michigan QSO party begins Saturday, April 21, 2018 1600Z to April 22, 2018 0400Z. Slide your web browser over to miqp.org for more information.

The ARRL Great Lakes Division Convention at Hamvention this year will be my first as your Section Manager. I'm looking forward to meeting up with you at the ARRL Expo area, or perhaps wandering the flea market.

Hospitality Acknowledgements

Thanks to these organizations and clubs for their outstanding hospitality shown to the MI ARRL staff:

- March 15th, Monroe Radio Club
- March 17th, Kalamazoo Swap

Michigan ARRL Section Staff Travel Plans

Apr 29, 2018 GMARC 1st Annual Hamfest, Madison Hgts, MI – K8JK

May 5, 2018 Cadillac Hamfest, Cadillac, MI – K8JK

May 18th, 2018 Great Lakes Convention (Hamvention) - K8JK

Michigan Public Service Activities

Michigan Section Traffic/ARPS Net (all times local)
Please note that time adjustments may be necessary due to propagation changes. Contact your net manager for alternate frequencies and/or times.

MACS - MI Amateur Communications System 3.952 1000 Daily

UPN – Upper Peninsula Net 3.921 1700 Daily; Noon Sun
MIARPS – MI Amateur Radio Public Service Corps 3.932 1700 Sun

QMN – The Michigan Net 3.563 1830 and 2200 Daily

MITN – MI Traffic Net 3.952 1900 Daily

MIDTN – MI Digital Traffic Net 3.583 (Olivia 8/500) 2000 Tu, Th, Sat

MIADS – MI ARES D-Star Net Reflector 24A Mon 2000

D8EN - District 8 Emergency Net 3.909 Wed 2000

GLETN – Great Lakes Emergency and Traffic Net 3.932 2000 Daily

MVTN – MI VHF Traffic Net IRA Link System 2100 Mon, Wed, Fri, Sun

NLEUP - Northern Lower Eastern UP Net 146.64- 18:30 Daily

SEMTN – SE MI Traffic Net 146.76- 2215 Daily
TMMTN – Thumb Mid-Michigan Traffic Net 147.30+ 2130
Mon - Sat

Michigan Amateur Radio Public Service Corps (ARPS)C
Activities for March 2018

Station Activity Reports (SAR) for March 2018:

WB8WKQ 315, N5MKY 153 , WB8TQZ 97, K8ED
90 ,K8RDN 83 ,WD8MWD71,WD8USA 38, KE8CEH
30 , WB8RCR 8

Public Service Honor Roll (PSHR) for March 2018:

WB8RCR 238, WD8USA 138, WD8MWD 120, K8RDN
116, WB8TQZ 110, N5MKY 105 ,KC8YVF 96, K8ED 90,
WB8WKQ 90 , KE8CEH 87, KE8BYC 79, KC8NFN 50

Brass Pounder's League (BPL): None

Net traffic for January 2018:

The Michigan Net	116.00
Michigan Amateur Communications System	133.70
Michigan Traffic Net	47.60
Southeastern Michigan Traffic Net	88.1
Great Lakes Emergency and Traffic Net	75.08
Upper Peninsula Net	613.91
Michigan VHF Traffic Net	32.8
Michigan Digital Traffic Net	70.3
Northern Lower Eastern Upper Peninsula Net	46.0
District 3 ARPS)C Net	13.10
Saginaw County ARES Net	27.02
Luce County ARES Net	15.18
Michigan Amateur Radio Public Service Corps	16.70
District 5 Hospital Net	10.0
Chelsea ARC Net	10.80
District 8 Emergency Net	2.5
Red Cross Net of Greater Grand Rapids	2.0

Total Volunteer Dollar Value for March 2018: \$ 31,884

More information is available at <http://nts-mi.org/>.

Come join us on our traffic and public service nets.

A hearty thanks to the hundreds of volunteers across the State of Michigan who work hard as volunteers to hone their skills month after month to make sure they are ready for any situation that may arise. Our ARPS)C and NTS programs are an integral part of AuxComm, which in turn is an integral part of the Michigan State Police Homeland Security Division.

Final Thoughts

Remember that I'm always interested in hearing about your solutions for issues within our amateur radio community, the issues are sometimes really easy to spot, but the solutions are just a bit more challenging.

I'm looking forward to running into you on the air!

73
Jim K8JK

Dales Tales

Greetings, welcome to "Dale's Tales" for May 2018.

HAMVENTION: This year's Hamvention® will host the ARRL Great Lakes Division Convention. This affords the opportunity to include some extra activities from ARRL and the Headquarters staff. The new location in Xenia, OH is well equipped for hosting the world's largest ham radio event and the venue has offered some expanded areas this year. Scott Yonally N8SY and his team from the Ohio Section will be greeting visitors the ARRL Field Organization booth at ARRL EXPO and we encourage everyone to stop by to meet and exchange thoughts and greetings. The ARRL EXPO is in building 2, the "TESLA" Building.

Other ARRL EXPO activities will include Radiosport/DXCC, IARU, Public Service, Meet the Authors, Collegiate, Learning and Development/ARRL Foundation plus the ARRL Store.

ARES NEWS: Of special note, this year's ARRL Member Forum at the Hamvention will include an overview of the planned upgrades to the nationwide ARES program. This forum offers an excellent opportunity for ARRL to introduce the changes proposed for ARES for the 21st Century. We'll present the recommended ARES Strategic Plan, the background and how it was developed, the peer review procedures involved and the multi-stage approval process. Most importantly, we will highlight what the changes will mean to every ARES participant and our served partner agencies plus the benefits the program will offer for those participating. The ARRL Forum will be in Forum Room 3 beginning at noon on Saturday.

TOM'S COMMENTS: Comments from our Vice Director Tom Delaney W8WTD

Good news for amateur radio from two clubs in my local area. The Highland County (Ohio) club recently graduated more than 30 new hams from their classes in March. The OH-KY-IN group in Cincinnati is finishing up a five-week course with almost 25 prospective hams in that group.

And while I try to keep up with what other classes and activities go on throughout the Division, it's impossible to know what every local club is doing. But I'm sure many of you are out there teaching and promoting ham radio. Whether you had two or thirty new hams this month, keep up the good work!

One of the continuing themes of the Board's Entry Level Licensing committee was on-going education. Too many people take that first step, and stall. They don't go further. Here's one thing that those two clubs are doing to offer that next step. The Highland county group is offering an "Elmer's night" for its recent graduates. They'll meet to offer information on first rigs, antennas, and all sorts of advice. They'll also offer the opportunity to get on the air and make that first contact for those who have not yet done so.

For several years now, the OH-KY-IN group has taken a different approach. They run the "Newcomers and Elmers Net" on their repeater each week. It's worth quoting these two sentences from their website: Our goal is not only to help you learn, but also to give you real-world experience talking on your radio. Each week, there will be a topic for discussion, but ALL questions are welcome whatever the area of the radio hobby. If we do not know the answer right away, we will find out!

Two great efforts at follow-up for new hams, which we can all learn from. Not every new ham is going to attend that session, and not every new ham is going to get on the air so they can learn from the net. But the opportunity is there, for those who take it.

And if we think about it a little bit, there are probably other efforts we can all make to invite the new people to better participation in our great hobby. What are your thoughts? If you've got an idea, whether it's something you're doing, or just something you'd like to see happen, let me know. Let's share some of the ideas and get more of our new hams on the air.

--73, Tom W8WTD Vice Director, Great Lakes Division

HAMFESTING: Here is the current Great Lakes Division ARRL Sanctioned Hamfest Schedule covering the next couple of months. These swaps have received their sanctioning approval from ARRL HQ at the time of this publication. We have approximately 65 ARRL hamfests each year in the Division. I do encourage each Hamfest Chair to register early for ARRL Sanctioning. Be sure to invite your ARRL Officials as soon as your date is set.

5/5/18	Cadillac Hamfest	Cadillac, MI
5/18 to 5/20	Dayton Hamvention	Xenia, OH
6/2/18	IRA Hamfest	Hudsonville, MI
6/2/18	Fulton County Hamfest	Tedrow, OH
6/2/18	Princeton Hamfest	Princeton, KY
6/3/18	Chelsea Hamfest	Chelsea, MI
6/16/18	Midland Hamfest	Midland, MI
6/17/18	Monroe Hamfest	Monroe, MI
7/8/18	20/9 Radio Club	Austintown, OH
7/21/18	GARS Hamfest	Germantown, OH
7/21/18	Gladwin Hamfest	Gladwin, MI
7/21/18	NOARS Fest	Elyria, OH
7/22/18	Van Wert	Van Wert, OH
7/28/18	Big Sandy Hamfest	Louisa, KY
7/28/18	CMARC Hamfest	Lansing, MI
7/29/18	Portage Hamfest	Ravenna, OH

Be sure to check your Section's news pages for the latest local happenings, club and net information.

73, Let's light up the bands,

Dale Williams WA8EFK
Director
Great Lakes Division

ARRL PROPAGATION BULLETIN

QST de W1AW

Propagation Forecast Bulletin 18

ARLP018 From Tad Cook, K7RA Seattle, WA

May 4, 2018

To all radio amateurs

Sunspots disappeared again this week, with a blank Sun on April 28, and continuing on every day since.

Average daily sunspot numbers dropped from 20 to 3.6, while average daily solar flux decreased from 73.4 to 69.3.

Average daily planetary A index declined from 11.9 to 4.4 and average mid-latitude A index went from 8.6 to 5.

Predicted solar flux is 67 on May 4-5, 68 on May 6, 69 on May 7-10, 68 on May 11-13, 70 on May 14-28, 68 on May 29 through June 9, and 70 on June 10-17.

Predicted planetary A index is 5 on May 4-5, then 18, 22, 16, 12 and 8 on May 6-10, 5 on May 11-16, then 42, 12 and 8 on May 17-19, 5 on May 20 through June 1, then 8, 15, 12, 10 and 8 on June 2-6, 5 on June 7-12, then 42, 12, and 8 on June 13-15 and 5 on June 16-17.

F.K. Janda, OK1HH of the Czech Propagation Interested Group has been compiling this weekly forecast since 1978.

"Geomagnetic activity forecast for the period May 4-29, 2018

"Geomagnetic field will be:

Quiet on May 23-26, 28-29

Mostly quiet on May 14, 16, 21-22, 27

Quiet to unsettled on May 4, 11-13, 19-20 Quiet to active on May 5, 8-10, 15, (18) Active to disturbed on May (6-7,) 17

"Solar wind will intensify on May 5-7, (8-11,) 17-18, (19-20, 26-27)

"Remark:

- Parenthesis means lower probability of activity enhancement.

- With regard to ongoing changes, current forecasts are continuing to be less reliable."

Thanks to British ham Max White, MOVNG and others for alerting us to the recent buzz about the current solar cycle perhaps reaching a minimum sooner than predicted:

<https://bit.ly/2HN8fdn>

Consensus seemed to place the approaching solar minimum around two years from now in 2020, but recent trends suggest the minimum may appear sooner. Does this mean the turnaround and following increase may also come sooner than previously anticipated?

K9LA has info on this:

http://k9la.us/May18_Solar_Minimum_and_Spotless_Days.pdf

http://k9la.us/html/monthly_feature.html

New from Dr. Tamitha Skov:

<https://youtu.be/ylecUN5LgYA> - On the Ledge About Stealthy Solar Storms

"Dear Tad,

"Sometimes I wish I had started this Space Weather Woman thing a decade ago. That way I would be able to do a direct comparison with how things were during our last solar minimum in 2008. But then I realize, I wouldn't have had the benefit of you giving me timely reports from your local areas on social media. I wouldn't have heard you talking about the impacts you were experienc-

ing during these solar events. This reminds me how grateful I am to all of you today.

If it weren't for you, I would never know the extent to which Space Weather affects our everyday lives.

"This brings me to this week's forecast video. I am still shaking my head that we managed to miss a stealthy solar storm that brought aurora clear down to Illinois, USA. Guaranteed, national grids were on high alert as we crossed through the G2-level storm threshold.

The irony that this stealthy solar storm occurred while we convened a workshop on how to predict them is not lost on me. In fact, it's kind of a cosmic cattle prod. If we can experience such a strong solar storm that surprised us all--so near solar minimum--what does that say about our forecasting ability?

"I hope events like these serve as a wakeup call to us scientists, forecasters, and meteorologists alike. Although this week the Earth-facing side of the Sun is reasonably quiet, I will take this moment to reflect on all the work we have yet to do. In fact, that's exactly what I was doing while sitting on my window ledge during my last night in Switzerland (see the picture above). I was reflecting. Thanks so much for reminding me how important all of this is.

"Cheers,

"Tamitha"

Ever seen this?

<https://ham.stackexchange.com/>

If you would like to make a comment or have a tip for our readers, email the author at, k7ra@arrl.net.

For more information concerning radio propagation, see the ARRL Technical Information Service web page at, <http://arrl.org/propagation-of-rf-signals>. For an explanation of numbers used in this bulletin, see <http://arrl.org/the-sun-the-earth-the-ionosphere>.

An archive of past propagation bulletins is at

<http://arrl.org/w1aw-bulletins-archive-propagation>. More good information and tutorials on propagation are at <http://k9la.us/>.

Monthly propagation charts between four USA regions and twelve overseas locations are at <http://arrl.org/propagation>.

Instructions for starting or ending email distribution of ARRL bulletins are at <http://arrl.org/bulletins>.

Sunspot numbers for April 26 through May 2, 2018 were 14, 11, 0, 0, 0, 0, and 0, with a mean of 3.6. 10.7 cm flux was 69.4, 68.7, 70.2, 71.1, 70.2, 68.4, and 67.1, with a mean of 69.3. Estimated planetary A indices were 4, 6, 4, 4, 6, 3, and 4, with a mean of 4.4. Estimated mid-latitude A indices were 4, 5, 5, 3, 10, 3, and 5, with a mean of 5.
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ARRL DX NEWS

QST de W1AW
DX Bulletin 19 ARLD019
From ARRL Headquarters
Newington CT May 3, 2018
To all radio amateurs

This week's bulletin was made possible with information provided by SV2CLJ, The Daily DX, the OPDX Bulletin, 425 DX News, DXNL, Contest Corral from QST and the ARRL Contest Calendar and WA7BNM web sites.
Thanks to all.

QATAR, A7. Rasto, OM6AA is QRV as A75GR while living in Doha. QSL via M0OXO.

MOZAMBIQUE, C9. A group of operators are QRV as C8T until May 15.
Activity is on 160 to 10 meters using CW, SSB, RTTY, and possibly PSK and FT8 with four stations. This may include a fifth station running 2 meter EME. QSL via ON1DX.

PHILIPPINES, DU. Press, N6SS is QRV as DU6/N6SS from Sibalom, Antique Province, Panay Island, IOTA OC-129,

until May 17. Activity is on 80 to 10 meters using CW and FT8. QSL to home call.

SOUTH COOK ISLANDS, E5. Bruce, WB7OTC will be QRV as E51OTC from Rarotonga Island, IOTA OC-013, Aitutaki Island, IOTA OC-083, and Atiu Island, IOTA OC-083, from May 6 to 17. Activity will be on the HF bands using QRP power. QSL to home call.

BELARUS, EW. Special event station EV73K will be QRV from May 5 to 10 to commemorate the 73 years since victory in the great patriotic war. QSL via EW8EQ.

PANAMA, HP. A group of operators are QRV as 3F6IC from Cebaco Island, IOTA NA-071, until May 6. Activity is on 80 to 10 meters using SSB and various digital modes. This includes being active on 60 meters. QSL via HP1AVS.

ALAND ISLANDS, OH0. Ari, OH3KAV will be QRV as OH0KA from May 6 to 10. Activity will be on the HF bands, including 60 meters, using CW and FT8. QSL to home call.

NETHERLANDS, PA. Operators Tonny, PD1TV and Henri, PA4HM will be QRV with special call sign PH00GEVEEN from May 5 to 22 during the annual Wings and Wheels event held at Hoogeveen Airfield. Activity will be on the various HF bands using SSB. QSL via bureau.

Please see May QST, page 83, and the ARRL and WA7BNM Contest Web Sites for details.
NNNN

CURACAO, PJ2. Savas, SV2AEL will be QRV as PJ2/SV2AEL from May 10 to 15. Activity will be holiday style on the HF bands. QSL direct to home call.

TURKEY, TA. Col, MM0NDX, Max, IK8LOV and Bjoern, ON9CFG will be QRV as TA0/home calls and as TCOAX from May 7 to 11. Activity will be holiday style on 80 to 2 meters. QSL to home calls and TCOAX via M0SDV.

EUROPEAN RUSSIA, UA. A number of Russian stations will switch to the RP73 prefix from May 5 to 9. The P in the prefix stands for the Russian word pobeda, or victory, in the English language. And the 73 stands for the number of years since the end of World War II.

MACQUARIE ISLAND, VK0. Norbert, VK5MQ is QRV as VK0AI and will be here with the next winter team for one year. Activity has been on 30 and 20 meters using FT8 between 0400 to 0630z. QSL to home call.

SERBIA, YU. Special event station YU100APV is QRV through December 31, 2018 to commemorate the 100th anniversary of the unification of Vojvodina and Serbia.

THIS WEEKEND ON THE RADIO. New England QSO Party, 10-10 International Spring CW Contest, NCCC RTTY Sprint, NCCC CW Sprint, MIE 33 Contest, Araucaria World Wide VHF Contest, SBMS 2.3 GHz and Up Contest and Club Challenge, Microwave Spring Sprint, ARI International DX Contest, 7th Call Area QSO Party, Indiana QSO Party, Delaware QSO Party and the FISTS Spring Slow Speed Sprint are all on tap for this upcoming weekend.

The RSGB 80-Meter Club SSB Championship is scheduled for May 7.

The ARS Spartan CW Sprint is scheduled for May 8.

The CWops Mini-CWT CW Test and Phone Fray are scheduled for May 9.

The ARRL International Grid Chase runs during all of 2018.



CLASSIFIED

Lady that has the Heath Kit radios for sale

Kim Hixon

850-830-8664

Guy that has all the tubes

Corky Walter

bottlestopper@yahoo.com

Bruce KD9HQD

Space Available to push your stuff

LINKS AND STUFF

Under re-construction. Watch for the orange barrels

*Delta County Amateur Radio
Escanaba, MI
www.dcars.org*

*Cooper Country Radio Amateur
Dollar Bay, MI
www.ccras.net*

Area Repeaters

Escanaba 147.15+	100.0
	145.13- No PL
Wells 444.30+	No PL
Gladstone	
IRLP 4013 147.55 Smpx	100.0
Champion 146.82-	100.0
Cooks 146.70 -	110.9
GrdMarais 147.195+	No PL
Gwinn 146.64	100.0
Iron Mtn 146.85 —	100.0
	444.85 — 100.0
Iron River 145.17-	107.2
Ishpeming 146.91-	No PL
IRLP 8993 443.50+	100.0
Manistique 146.79 -	No PL
Marquette 146.97 -	No PL
	147.27+ 100.0
	444.80+
	No PL
Menominee 147.00+	107.2
Newberry 146.61 +	No PL
	147.09+ 114.8
Republic 147.09+	No PL
Trenary 147.03 +	100.0
Wetmore 145.41-	100.0

ARRL Affiliated Club Area Nets

UP Net 3921khz
Daily 5pm EST
Sunday Noon EST

UP CW NET 3590khz
Sunday 7pm EST

160 Net 1895khz
Everynight 0100UTC
Dailey 0600UTC

Midcars 7258khz
Daily 0730am EST
0200pm EST

Outhcars Node 9614
Saturday 0900am EST

UP Echolink Node 9617
Sunday 8pm EST

Copper County ARES
146.88
Wednesday 9pm EST

**Mich-A-Con Social and
ARES**
146.850
Thursday 0630pm CST
ARES follows

ARRL WEB PAGE: <http://www.arrl.org>

ARRLMICHIGAN: <http://www.arrl-mi.org/>

US REPEATERS: <http://www.usrepeaters.com>

Tropospheric Ducting Forecasts:
<http://www.d/infocentre.com/tropo.html>

MICH-A-CON : <http://www.qsl.net/ka1ddb>

FCC Universal Licensing System: <http://wireless.fcc.gov/uls/>

QTH Com: <http://www.qth.com/>

QRZ <http://www.qrz.com/>

E Ham Net <http://www.eham.net/>

UP Skywarn: <http://kera-mi.net/skywarn/>

Band Conditons: <http://bandconditions.com/>

ABOUT OUR CLUB....**Club Officers****President:**

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Terry Moriarity: 715 251 1670

Activities:

Second Wednesday of the month the Mich-A-Con Amateur Radio Club meets in the Dickinson Country Library at 7:00 P.M. Winter or 6:30 PM Summer

Visitors and prospective members are always welcome!

Club Repeater:

The Club maintains two repeaters which are located on Pine Mountain (Elevation 1650 ft) in Iron Mountain with tower and facilities provided by the Wisconsin Electric Power Co. The range of the 2 meter repeater is about 40 miles. The range of the 440 MHZ repeater is about 25 miles. Both are under normal conditions, depending upon terrain.

The Repeater Specifications:

The 146.85 repeater is a Yaesu DR 1 digital and Analog repeater Frequency. 146.85 minus offset, 100 hz PL tone encode and decode Power 50 watts. The Controller is an Arcom RC 210 . It is also System Fusion capable.

. The 440 MHZ repeater is a GE Master II 444.85, plus offset, 100 hz pl tone. 35 watts output. The Controller is a Arcom 210.

The 2 meter and the 440 can be linked. The repeaters share a Diamond dual band antenna at a tower height of 125 ft.

We're on the Web!

<http://www.qsl.net/ka1ddb/>

Previous editions of the Newsletter can be accessed by a link on the **news** page

From Your Newsletter Editor

Thank you to those contributors and critiques.
Welcome your articles - They make the Newsletter.

For those not getting the Newsletter, it is because I have an incorrect email address. Please give me the correct address.

The following is referenced from <http://www.dx-code.org>

DX Code Of Conduct

I will listen, and listen, and then listen again before calling.

I will only call if I can copy the DX station properly.

I will not trust the DX cluster and will be sure of the DX station's call sign before calling.

I will not interfere with the DX station nor anyone calling and will never tune up on the DX frequency or in the QSX slot.

I will wait for the DX station to end a contact before I call.

I will always send my full call sign.

I will call and then listen for a reasonable interval. I will not call continuously.

I will not transmit when the DX operator calls another call sign, not mine.

I will not transmit when the DX operator queries a call sign not like mine.

I will not transmit when the DX station requests geographic areas other than mine.

When the DX operator calls me, I will not repeat my call sign unless I think he has copied it incorrectly.

I will be thankful if and when I do make a contact.

I will respect my fellow hams and conduct myself so as to earn their respect.

MEMBERSHIP

Call Sign	Last Name	First Name	City	Phone	Email
WB8EBS	ARMBRUST	BURT	QUINNESEC	906-774-8383	wb8ebs@yahoo.com
W8XBO	ARMBRUST	ED	IRON MOUNTAIN	906-779-5593	w8xbo@sbcglobal.net
KC9KVP	BAKER	BETH	NIAGARA		
KB9AVX	BAKER	SCOTT	NIAGARA	715-251-1944	kb9avx@yahoo.com
KB8SBP	BERTOLDI	BILL	KINGSFORD		
W8BEY	BEY	DANA L.	KINGSFORD	906-774-7937	lst797@charter.net
K8DDA	BRAY	MIKE	VULCAN	906-201-1550	mikebray@chartermi.net
KE9L	CASWELL	SKIP	IRON MOUNTAIN	906-774-3371	acaswell4238@charter.net
KC8QZG	DAKE	DAVE	NEWBERRY		
KC9ZBC	DOLATOWSKI	SCOTT	GOODMAN	715-633-1006	kc9zbc@live.com
KC9TQR	FERRIS	JOE	FLORENCE	517-589-4386	jrferris@borderlandnet.net
N9MBG	FRY	ED	PEMBINE	906-221-7307	efry7849@gmail.com
KG8NK	GEMBOLIS	LOUIS	ISHPEMING	906-485-5442	lgembolis@chartermi.net
KE8FWN	GRABOWSKI	BILLY	CRYSTAL FALLS	?	
KD8VTS	GRABOWSKI	DEBRA	CRYSTAL FALLS	906-284-2450	kd8vts@gmail.com
KD8VTT	GRABOWSKI	WILLIAM	CRYSTAL FALLS		
KC8TH	HEYBOER	TOM	IRON MOUNTAIN	906-779-0481	heyboer.tom@gmail.com
N8ATS	HOLMES	SAM	PEMBINE	906-322-8507	chopsam@centrylink.com
KA8TFF	JARMUSCH	SCOTT	IRON MOUNTAIN		
KB9EMU	KNUTSON	WILLIAM	FENCE	715-336-2250	dknutson54@gmail.com
KB8ETK	KOMBLEVICZ	JOSEPH	IRON MOUNTAIN	906-774-4094	kombleviczj@charter.net
KD9HQD	LaLIBERTE	BRUCE	NIAGRA, WI	?	liberte@borderlandnet.net
KE8GHE	LUNDAMO	DUANE	?	?	?
W8JWN	MARTIN	THOMAS	IRON MOUNTAIN	906-774-5463	tmartin@chartermi.net
WA8FXQ	MEYERS	BOB	VULCAN	906-396-0119	meyersb@uplogon.com
KC8LRP	MEYERS	MARGE	VULCAN	906-396-8913	mgmeyer@uplogon.com
N8TUM	MILLER	TIMOTHY	FLORENCE	715-696-6517	timmiller.up@gmail.com
K9TRY	MORIARITY	TERRY	NIAGARA	715-251-1670	kb9zer@yahoo.com
ND8M	PAUL	JARED	NORWAY	989-660-9535	jaredpaul@me.com
KD8SZA	PAUL	MICHELLE	NORWAY		
KC9NFT	PERRON	BARRY	FLORENCE	715-696-6175	bperron2@netzero.com
KC8JRI	REED	GORDY	IRON MOUNTAIN	906-779-1254	gordyreed@charter.net
KE8GHH	RITTENHOUSE	DAVE	IRON MOUNTAIN	?	?
K8ABS	RIVERSIDE	JIM	IRON MOUNTAIN	906-458-0773	jriverside@charter.net
W8IFI	RYE	JIM	CRYSTAL FALLS	906-875-3582	jimrye@up.net
K4FMX	SCHAFFER	GARY	NIAGRA, WI	?	GARYSCHAFFER@LARGERIVER.NET
KG9Y	THOMAS	DAVE	NIAGARA	715-251-1393	kg9y@arrl.net

BLACK: Paid Members

BROWN: Past or Unpaid Members



MICH - A - CON

Please remit dues to:

Debbie Garbowski, KD8VTS

203 Camp 5 Road

Crystal Falls, MI 49920

Name: _____

Call Sign: _____

Address: _____

City, State, Zip: _____, _____, _____

Email Address: _____

Phone: _____

ARRL Member? Yes _____ No _____

Please make check payable to: **Mich-A-Con ARC**

Annual dues for Full Membership -

Single \$20 __ Family \$30 __ Repeater Only \$10 __

If family membership, please list additional:

Names: _____

Call signs: _____

City, State, Zip: _____

Annual dues are Payable January 1st.

Dues for New Members are Pro-rated. Please remit \$1.67 per month for a Single membership or \$.50 per month for a Family membership.